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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/339,963	06/25/1999	ANDREAS V. BECHTOLSHEIM		3287

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EXAMINER

HOANG, THAI D

ART UNIT	PAPER NUMBER
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2662

DATE MAILED: 09/11/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/339,963

Applicant(s)

BECHTOLSHEIM ET AL.

Examiner

Thai D Hoang

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-72 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 31-65 is/are allowed.
- 6) ☒ Claim(s) 1-23, and 66-72 is/are rejected.
- 7) ☒ Claim(s) 24-30 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 June 1999 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

DETAILED ACTION

Specification

The disclosure is objected to because of the following informality:

The specification does not define what is meant by "GX packet."

Appropriate correction is required.

Claim Objections

Claims 3, 10, 66 and 68 are objected to because of the following informalities:

Regarding claims 3 and 68, the statement "...said header further includes..." implies that it is previously state that the header includes something, which is not the case. Previous claims did not define what header contains, therefore, the word, further, on lines 23 pages 26 and 40 respectively, is misused.

Similarly, claim 10, the statements "payload ends on said data lane m", "said data lane 0", "said data lane 1" found no basic. Previous paragraphs did not define what lane m, 0 and 1, therefore, the word, "said" on lines 6,12-13 page 28, is grammatically incorrect

Regarding claim 66, the statement "said variable length packet data" should be changed to – variable length packet payload-

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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Claims 1-2, 10, 14, 18 and 66 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, the statement "...a second step of sending said packet including a START symbol and TYPE field identifying the format of said payload including an FCS sequence; a third step of sending said variable length payload..." is not clear. The statement "...a second step of sending said packet..." implies that the header, payload, and FCS fields are sent; whereas the statement "...a third step of sending said variable length payload..." implies that the payload is sent after the packet is sent. Furthermore, the statement "...and TYPE field identifying the format of said payload including an FCS sequence..." is not correct, because type field and FCS field are separate fields.

Regarding claim 10, the statement "...for the case where $m < n$, said fourth step includes sending on said final payload cycle said END symbol on lane $m+1$, and said IDLE symbol on any available data lanes $m=n+2$ through n " is not clear. It does not make sense how sending on the final payload cycle the IDLE symbol on "any available data lanes $m=n+2$ through n " because the total lanes is n .

Claims 2-21, and 68-72 are rejected because they depend on rejected claims 1 and 66 respectively

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-2 and 66-67 are rejected under 35 U.S.C. 102(e) as being unpatentable over Garcia, U.S patent No. 6,363,078 B1.

Regarding claims 1 and 66, Garcia discloses a path verification unit that interfaces telecommunications media to a switching matrix. Garcia discloses that the method comprises a first step of sending IDLE symbols until a synchronization time has passed (col. 9, line 27-col. 10, line 31); a second step of sending a variable length packet which comprises a header, payload and CRC (FCS) fields, wherein the header includes a payload type field (PTI field, figures 7-10); Furthermore, Garcia method comprises a third step of sending IDLE symbols if the next packet is not ready to transmit, or returning to the second step if the next packet is ready to transmit (col. 24, lines 53-64.)

Regarding claims 2 and 67, as best understood, Garcia discloses that the system supports both synchronous transfer mode (STM) and integrated packet layer (iPL),

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therefore, the TYPE field identifies the payload format such as Ethernet packets, native IP packets, ATM cells (col. 4, line 5-col. 5, line 9; col. 10, lines 46-53.)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 9 and 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garcia in view of Finney et al U.S patent No. 5,570,356.

Regarding claim 9, Garcia discloses that the system transmits the header, payload, and stop symbol. Garcia does not teach that the header, payload, and stop symbol are carried in a plurality n of data lanes of the system. However, Finney discloses a high bandwidth communication system that splits a high speed parallel data word into a number of individual parallel data bytes, i.e. n lanes (abstract, col. 2, lines 23-38, figures 1-3 and 6.)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to adapt the parallel method disclosed by Finney into Garcia system in order to speed up the packet transmission in the network.

Regarding claim 22, Garcia does not teach that the system comprises n data lanes to transmit the header and the variable payload of the packet. However, Finney discloses a high bandwidth communication system that splits a high speed parallel data

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word into a number of individual parallel data bytes, i.e. n lanes. The data is encoded and transmitted in a sequence by encode and serialize unit (fig. 1, elements 116-120.)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to adapt the parallel method disclosed by Finney into Garcia system for the same reason as mentioned in claim 9.

Regarding claim 23, Garcia's method inherently comprises the steps of sending the header first, that includes a start symbol, then sending the payload data, and stop symbol. Garcia does not teach that the start symbol is transmitted on a first data lane, and the payload data is followed by a stop symbol is transmitted on at least one data lane. However, Finney discloses a high bandwidth communication system that splits a high speed parallel data word into a number of individual parallel data bytes, i.e. n lanes.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to adapt the parallel method disclosed by Finney into Garcia system for the same reason as mentioned in claim 9.

Allowable Subject Matter

Claims 24-30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 31-65 are allowed.

The following is an examiner's statement of reasons for allowance:

The prior art of record does not teach or fairly suggest the following:

a. A transmit processor comprising:
a busy input;
a transmit buffer/controller accepting and arranging a packet data into a plurality
n of data lanes;
a plurality n of transmit encoders; and
a plurality n of transmit serializers,
are interconnected to perform the function as disclosed in claim 31.

b. A receive processor comprising:
a plurality n of receive deserializers;
a plurality n of receive decoders ; and
a receive buffer/controller;
are interconnected to perform the functions as disclosed in claim 49.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents are cited to further show the state of the art with respect to the application:

US patent No. 6,426,943 B1 to Spinney et al

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US patent No. 6,408,002 B1 to Quattromeni et al

US patent No. 5,537,403 A to Cloonan et al

US patent No. 6,389,029 B1 to McAlear

US patent No. 5,959,987 A to Humphrey et al

US patent No. 5,613,069 A to Walker

US patent No. 6,320,877 B1 to Humphrey et al

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai D Hoang whose telephone number is (703) 305-3232. The examiner can normally be reached on Monday-Friday 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (703) 305-4744. The fax phone numbers for the organization where this application or proceeding is assigned is (703) 872-9314 for regular communications and for after final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

Thai Hoang
September 9, 2002



HASSAN KIZOU
SUPERVISORY PATENT EXAMINER
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